



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/688,834

10/17/2000

Toshio Koga

Q60831

1858

7590 01/05/2007
SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

MEINECKE DIAZ, SUSANNA M

ART UNIT

PAPER NUMBER

3694

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/688,834

Applicant(s)

KOGA, TOSHIO

Examiner

Susanna M. Diaz

Art Unit

3694

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This final Office action is responsive to Applicant's amendment filed October 20, 2006.

Claim 1 has been amended.

Claims 1-7 are presented for examination.

2. The previously pending rejection under § 112, 2nd paragraph is withdrawn in response to Applicant's claim amendment.

Response to Arguments

3. Applicant's arguments filed October 20, 2006 have been fully considered but they are not persuasive.

On page 6 of Applicant's response, "Applicant submits that neither of the applied references, either alone or in combination, disclose or suggest at least, 'wherein said elements (a)-(d) are provided on a vehicle,' and that the Examiner is using impermissible hindsight reasoning in concluding that these features are obvious. Nowhere does Fuyama disclose or suggest the above-quoted specific structure." The Examiner has explained in the art rejection where the structure in claim 1 is disclosed in Fuyama. Applicant has not provided support for the assertion that Fuyama does not disclose said specific structure; therefore, Applicant's arguments are non-persuasive. Again, Applicant is reminded that the location of these means does not affect the recited structure or functionality. Additionally, a shift in the location of recited parts is deemed

Art Unit: 3694

to be obvious in light of prior art teachings addressing the structure and functionality of the recited parts, as supported by *In re Japikse*, 86 USPQ 70, 73; 182 F2d 207 (CCPA 1950). Therefore, the Examiner submits that the claimed invention is obvious in light of Fuyama since Fuyama teaches the recited structure and functionality corresponding to these elements, as set forth in the art rejection of claim 1 found below.

Additionally, Applicant argues “Fuyama does not disclose or suggest converting the distance data to time data based on an area entering speed, as recited in claims 4 and 5” (page 6 of Applicant’s response). Any velocity determination (as taught by Fuyama) is based on a distance travelled in relation to a given time period.

Furthermore, Fuyama uses the velocity measurement to determine a sufficient time interval for establishing a communication link (col. 5, lines 1-54). This time interval is ultimately derived from a distance measurement. “Generally, the predetermined interval is twice or three times the time interval for establishing the communication link, for example 500 ms, which corresponds (slightly longer) to the interval (482 ms) necessary for travelling p1 to p2 at 30 Km/h. The predetermined interval is longer than the interval that the vehicle travels from the p1 to p2 at a relatively high speed, so that if the speed of the vehicle 35 is high (more than 30 Km/h), the communication link is judged in response to the second sensor s2.” (col. 5, lines 41-50). Applicant further submits that “even if, *arguendo* a time interval is ultimately derived from a distance measurement, Fuyama only discusses a predetermined interval, therefore Fuyama could not possibly disclose or suggest converting distance data to time data based on an area entering speed.” (Page 7 of Applicant’s response) First, the claimed invention does not specify

when the distance data is converted to time data. Second, Fuyama uses the distance data to derive a measurement of a sufficient time interval for establishing a communication link. This determination must be made as a car is approaching the toll area, i.e., such a determination must be made as a car is entering the toll area in order to effect the intensity of the communication signal in time for the car to pay a toll.

Applicant argues that "neither Fuyama nor Fuyama '267, either alone or in combination, discloses or suggests the specific feature of generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from the vehicle speed detecting means" (page 7 of Applicant's response). The Applicant fails to address the Examiner's specific line of reasoning in the rejection of claims 6 and 7 in light of the *combination* of Fuyama '376 and Fuyama '267. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, in response to applicant's previous argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d

Art Unit: 3694

1392, 170 USPQ 209 (CCPA 1971). The Examiner submits that the art rejection takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure.

In conclusion, Applicant's arguments are not persuasive.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuyama (U.S. Patent No. 6,259,376).

Fuyama discloses a vehicle-onboard electronic toll collection apparatus, comprising:

[Claim 1] (a) vehicle speed detection means for detecting a speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

(b) communication means for exchanging electronic toll collection information for settlement of toll charge/payment transaction with said toll gate station upon passing through said toll gate station (col. 5, line 55 through col. 6., line 7);

Art Unit: 3694

(c) measuring means for measuring reception field intensity of the received electronic toll collection information within a communication coverage area (Fig. 2; abstract; col. 4, line 25 through 5, line 54); and

(d) decision means for making decision on the basis of said detected vehicle speed and said measured reception field intensity as to a location within said communication coverage area where electronic toll collection information communication can be started while sustaining favorable reception field intensity at said detected vehicle speed, to thereby allow said communication means to perform communication processing on the basis of result of said decision (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

[Claim 2] wherein said detection means is so designed as to sample distance data which ensure more favorable reception field intensity than the reception field intensity at an entrance location of said communication coverage area on the basis of speed at which said motor vehicle enters said communication coverage area, to thereby generate distance-versus-reception field intensity data (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

[Claim 3] wherein said decision means is so designed as to determine said distance data which can ensure favorable reception field intensity through statistical processing on the basis of speed which said motor vehicle enters said communication coverage area (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

[Claim 4] wherein said detection means is so designed as to convert the distance data to time data based on area entering speed (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

[Claim 5] wherein said decision means is so designed as to convert the distance data to time data based on area entering speed (Fig. 2; abstract; col. 4, line 25 through 5, line 54).

As per claim 1, while Fuyama's vehicle speed detection means and communication means have components located on or within the vehicle (Fig. 2; abstract; col. 4, line 25 through 5, line 54), Fuyama's measuring means and decision means are located externally to the vehicle at the toll station (Figs. 1, 2, 4, 6, 8). In other words, Fuyama does not expressly teach that the measuring means and decision means are physically located on or within the vehicle (i.e., provided on the vehicle). However, the location of these means does not affect the recited structure or functionality. Additionally, a shift in the location of recited parts is deemed to be obvious in light of prior art teachings addressing the structure and functionality of the recited parts, as supported by *In re Japikse*, 86 USPQ 70, 73; 182 F2d 207 (CCPA 1950). Therefore, the Examiner submits that the claimed invention is obvious in light of Fuyama since Fuyama teaches the recited structure and functionality corresponding to these elements, as discussed above.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuyama (U.S. Patent No. 6,259,376), as applied to claim 1 above, in view of Fuyama '267 (U.S. Patent No. 6,834,267).

Regarding claims 6 and 7, Fuyama does not expressly teach the inclusion of image display means for displaying the electronic toll collection information exchanged through said communication means as an image while stopping display of the electronic toll collection information in dependence on a vehicle speed signal outputted from said vehicle speed detection means (claim 6) or voice output means for generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from said vehicle speed detecting means, for thereby outputting said message in voice (claim 7). However, Fuyama '267 discloses a toll system in which a driver is prevented from entering toll information if the driver's speed is above an acceptable threshold (e.g., if the vehicle is not immobile). If the vehicle is not immobile, "CPU 11 displays a message to the effect that a key operation is prohibited during running of vehicle and also provides a voice message to the same effect in step 153...In this way, the user is prohibited from operating the keyboard portion 16, this ensures the safety of vehicle driving." (Col. 5, lines 3-9) In other words, the display outputs a warning instead of enabling the toll data input based on the driver's speed. Additionally, speed warnings may be provided using a voice message. Both Fuyama and Fuyama '267 are directed toward toll systems that measure vehicle speed; therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify

Art Unit: 3694

Fuyama to include image display means for displaying the electronic toll collection information exchanged through said communication means as an image while stopping display of the electronic toll collection information in dependence on a vehicle speed signal outputted from said vehicle speed detection means (claim 6) or voice output means for generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from said vehicle speed detecting means, for thereby outputting said message in voice (claim 7) in order to help ensure the safety of vehicle driving, as suggested in col. 5, lines 3-9 of Fuyama '267.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3694

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susanna M. Diaz whose telephone number is (571) 272-6733. The examiner can normally be reached on Monday-Friday, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Susanna M. Diaz
Primary Examiner
Art Unit 3694

December 20, 2006